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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/507,396

09/10/2004

Rafael San Pedro Guerrenabarrena

HERR1.001APC

1253

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03/19/2008

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EXAMINER

ZHU, WEIPING

ART UNIT

PAPER NUMBER

1793

NOTIFICATION DATE

DELIVERY MODE

03/19/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

jcartee@kmob.com

eOAPilot@kmob.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/507,396	<b>Applicant(s)</b> GUERRENABARRENA ET AL.	
	<b>Examiner</b> WEIPING ZHU	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 25, 2008 has been entered.

### ***Status of Claims***

2. Claims 1-3 are currently under examination wherein claims 1 and 3 have been amended in applicant's amendment filed on January 25, 2008.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In the claim 1, "α-Mn" is not supported by the specification of the instant invention. The instant specification only discloses using Mn

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produced by electrolysis (paragraph [0013], US Publication of the instant application, US 2005/0120829). There is no mentioning of  $\alpha$ -Mn in the instant specification at all.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dremann (US 4,171,215).

With respect to claims 1 and 2, Dremann ('215) discloses a method for manufacturing high concentration pellets for aluminum bath alloying comprising (col. 3, lines 8-33 and lines 53-61):

Mixing 50-90 wt.% of electrolytic Mn powder ground from chips of a chemical purity of 99.7% or more with at least 10 wt.% of atomized Al powder having an average particle size of less than 40 mesh (420  $\mu\text{m}$ ), wherein the ground manganese powder has a particle size of less than 30 mesh (595  $\mu\text{m}$ ) and contains less than about 50 wt.% of particles with a size of less than 44  $\mu\text{m}$ .

The contents and the particle sizes of Mn and Al overlap the respective claimed ranges. A prima facie case of obviousness exists. See MPEP 2144.05 I. It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the claimed ranges within the disclosed ranges of Dremann ('215) with expected

success, because Dremann ('215) discloses the same utility over the entire disclosed ranges.

Dremann ('215) does not disclose the distribution of Al particle size and the percentage of fine Mn particles with a size of less than 100  $\mu\text{m}$  as claimed. However, it is well held that discovering an optimum value of a result-effective variable involves only routine skill in the art. In re Boesch, 617, F.2d 272, 205 USPQ 215 (CCPA 1980). In the instant case, the Al particle size distribution and percentage of fine Mn particles with a size of less than 100  $\mu\text{m}$  are result-effective variables, because they would directly affect the dissolution rate of the pellets in the Al bath as disclosed by Dremann ('215) (col. 1, lines 39-46). Therefore it would have been obvious to one skilled in the art to have optimized the result-effective variables in the process of Dremann ('215) for the desired dissolution rate of the pellets in the Al bath. See MPEP 2144.05 II.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dremann ('215) as applied to claim 1 above in view of JP 59-004999 A.

With respect to claim 3, Dremann ('215) does not disclose the claimed feature.

JP ('999 A) discloses controlling mixing powders through a detector and control circuit (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the powder mixing control system as disclosed by JP ('999 A) in the process of Dremann ('215) in order to suppress the fluctuation in the supply rate of powder and to make the quality of the resulted powder compact uniform as disclosed by JP ('999 A) (abstract).

### ***Response to Arguments***

6. The applicant's arguments filed on January 25, 2008 have been fully considered but they are not persuasive.

First, the applicant argues that Dremann ('215) uses  $\beta$ -Mn instead of  $\alpha$ -Mn as claimed in the instant claim 1. In response, see the rejection of the claimed feature of using  $\alpha$ -Mn in the instant claim 1 in the paragraph 3 above. Furthermore, Dremann ('215) does disclose using  $\alpha$ -Mn as one of the starting materials (col. 2, lines 5-9 and col. 3, lines 53-61).

Second, the applicant argues that Dremann ('215) teaches away from using  $\alpha$ -Mn as claimed. In response, the examiner notes that Dremann ('215) actually teaches using  $\alpha$ -Mn in many examples (Examples 1-3). Therefore, the teaching of Dremann ('215) that the  $\beta$ -Mn is preferred in terms of improved solution rate of manganese and manganese recovery would not constitute a teaching away from using  $\alpha$ -Mn.

### ***Conclusion***

7. This Office action is made non-final. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Weiping Zhu whose telephone number is 571-272-6725. The examiner can normally be reached on 8:30-16:30 Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

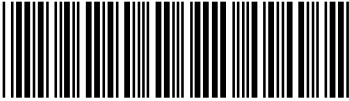
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

WZ

3/6/2008

<div>Application Number</div> <div></div>	Application/Control No.	Applicant(s)/Patent under Reexamination	
	10/507,396	GUERRENABARRENA ET AL.	
	Examiner	Art Unit	
	WEIPING ZHU	1793	